



Diving Into the Aquatics Industry

How Our Quick Release Device Helped Spectrum Aquatics

When seconds count, like in competitive swimming, there is no room for error. When Spectrum Aquatics, a leading provider of commercial grade pool equipment, encountered an issue with a part in their starting blocks, they turned to Vlier for help.

Starting blocks are raised platforms mounted to pool decks at the end of competitive swimming lanes. Constructed of metal and consisting of grips, handles and slots, they must be capable of withstanding both the harsh chemicals found in pool water and the force exerted by swimmers as they push off of the blocks to begin their dive into the water below. What's more, in instances of competitive swimming pools and competitions, they must stand up to the rigorous standards of USA Swimming and other sport swimming governing bodies, to ensure a level-playing field for athletes in all meets in which the starting blocks are used.

The Starting Point

Lock pins used to secure the parts of the starting block together were supplied to Spectrum Aquatics by a manufacturer constructing them using a three-piece design. While initially a sound solution, over time, Spectrum was receiving customer complaints about the lock pins rusting or breaking from frequent use. With such widespread failure, they knew they had to seek help from Vlier to provide a new, fail-safe solution.

Upon review of the incumbent part, and in consideration of the requirements of the finished piece, Vlier engineers reimagined the part as a two-piece design, creating a custom pull ring plunger. In this way, they cut down on vulnerable areas that could weaken. A first-run production batch of Vlier's pull ring plunger, part of the quick release device line, was delivered to Spectrum and put through internal testing. Likewise, a second batch was sent and validated. Constructed of 316 stainless steel, Spectrum engineers noted corrosion-resistance in addition to the improved product design. Satisfied with the corrective action on the part of Vlier, they awarded the manufacturer a contract to become the sole-source provider of this part. Despite the improved construction and testing results, the Vlier offering was at a price point not dissimilar to the inferior previous offering.

Of the information-exchange throughout the project and the overall results, Spectrum Aquatics Engineering Manager Shane Claggett shared that, "This was a smooth business transaction without hiccups. Vlier's part was massively better. We've heard of no failures or rejected parts. With normal wear and tear, we can report a failure rate of less than one percent."

About Vlier

Vlier Products, a unit of Hutchinson Aerospace & Industry, has been an industry leader for more than 75 years manufacturing spring loaded devices, quick-release devices, Vlier Lock Pins, leveling devices and mechanical components. Vlier offers more than 3,300 standard parts in a variety of sizes and materials for aerospace, medical, telecommunications, transportation and more. Every item in their extensive catalog has been engineered to provide the best quality and maximum value in productivity and dependable performance. Working smarter and harder for you, Vlier has the right part for the job. Based out of Massachusetts, Vlier calls upon a global distribution network, making their products readily available worldwide. For more information, visit vlier.com.



PROBLEM:

Spectrum Aquatics, a leading provider of commercial grade pool equipment, encountered widespread failure of a part used to construct their starting blocks.



SOLUTION:

Vlier engineers reimagined the part, strengthening it and improving reliability.



RESULTS:

Pleased with the success of the engineered part's performance, Spectrum Aquatics now integrates a pull ring plunger, part of Vlier's quick release device line, into the design of their competitive starting blocks.

Ready to Get Your Feet Wet?

Vlier offers more than 3,300 standard parts and can also capably custom-design solutions as they did for Spectrum Aquatics. If you're interested in diving into a project or learning more about offerings for the aquatics industry or the many industries served for more than 75 years, we welcome you to [contact us](#).